IN THE CLAIMS

Please amend the following claims which are pending in the present

application:

1 - 15 (Canceled)

16. (Original) A method comprising:

forming a gate and a pair of sidewall spacers on either side of the gate above a

single-crystal silicon substrate having a vertical [100] crystal plane, a horizontal [110]

crystal plane, and a diagonal [111] crystal plane;

etching a recess in the single-crystal silicon substrate along the vertical [100] crystal

plane with an anisotropic dry plasma etch;

implanting silicon into the bottom of the recess to form an amorphous etch stop;

etching the recess along the diagonal [111] crystal plane with an anisotropic wet etch

having a pH of at least approximately 10 and no oxidizer; and

filling the recess with an electronically doped silicon germanium material to form a

source/drain region.

17. (Original) The method of claim 16, further comprising a source/drain tip implant region

under the sidewall spacers.

18. (Original) The method of claim 16, further comprising a shallow trench isolation

region comprising an oxide and wherein the anisotropic wet etch does not etch the shallow

trench isolation region or a hardmask protecting the gate.

Inventor: Steven Keating Examiner: Dang, Trung Q Application No.: 10/750,054 Art Unit: 2823 19. (Original) The method of claim 16, wherein filling the recess with an electronically doped silicon germanium material forms an epitaxial source/drain tip extension region underneath the gate.

Claims 20 - 27 (Canceled)

28. (Original) A transistor, comprising:

a crystalline semiconductor substrate having a plurality of vertical [100] crystal planes, a plurality of horizontal [110] crystal planes, and a plurality of diagonal [111] crystal planes;

a gate electrode formed above the crystalline semiconductor substrate;

a pair of sidewall spacers, one on each side of the gate electrode; and

a pair of source/drain regions, one source/drain region under each of the sidewall spacers and wherein the source/drain regions are defined by the bottom of the spacers and by the diagonal [111] crystal planes.

29. (Original) The structure of claim 28, wherein the pair of source/drain regions extend

beneath the pair of sidewall spacers by a distance of up to the width of one of the pair of

sidewall spacers.

30. (Original) The structure of claim 28, wherein the pair of source/drain regions extend

under the gate electrode by a distance in the approximate range of 10% and 20% of the

width of the gate electrode.

Claim Rejections - 35 U.S.C. § 103

The Examiner has rejected claims 1, 4, 5, 10-15, and 20-22 under 35 USC §103(a) as unpatentable over <u>Gonzalez et al.</u> (U.S. Patent No. 6,784,076) in view of <u>Yasuda et al.</u> (U.S. Patent No. 6,060,403). The Examiner has rejected claims 7, 9, 23-24 and 26-27 under 35 USC §103(a) as unpatentable over <u>Gonzalez et al.</u> (U.S. Patent No. 6,784,076) in view of <u>Yasuda et al.</u> (U.S. Patent No. 6,060,403) as applied to claims 1, 4, 5, 10-15, 20-22 and further in view of <u>Kinugawa</u> (U.S. Patent No. 4,857,986). Claims 1, 4, 5, 7-24 and 26-30 have been canceled.

The Examiner has allowed claims 16-19 and 28-30. The Applicant thanks the Examiner for the allowance of these claims.

Inventor: Steven Keating Examiner: Dang, Trung Q
Application No.: 10/750,054 -4- Art Unit: 2823